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Navy & Marine Corps Medical News

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This service distributes news and information to Sailors and Marines, their families, civilian employees, and retired Navy and Marine Corps families. Further dissemination of this email is encouraged.

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Headline: Navy Researchers Reach Milestone in Developing DNA Vaccine

From Bureau of Medicine and Surgery

WASHINGTON -- Readiness problems caused by personnel suffering from disease infections may in the future be a distant concern of Navy and Marine Corps commanders. Navy medical researchers, working with civilian research organizations, have produced the first steps toward developing DNA vaccines that may have the potential to prevent a wide variety of the most common infectious diseases such as malaria, AIDS, dengue fever, and tuberculosis.

The researchers also indicated potential relief for highly fatal diseases, such as Ebola and Lassa fever, biological warfare threats and cancer. The Navy-led team recently tested a DNA malaria vaccine in healthy humans, a significant milestone in medicine's vaccine research effort.

The team, headed by CAPT Stephen Hoffman, MC, is based at the Naval Medical Research Center in Bethesda, Md. An article on the team's research is in the Oct. 16 issue of Science magazine.

"The purpose of this study was to determine if DNA immunization is safe, well tolerated and generates an

immune response in normal humans," said Hoffman. "We established this, so our next step is to develop a vaccine that will provide protection."

Hoffman's team and other researchers immunized 20 healthy volunteers with a malaria vaccine. The majority developed potent "killer" T-cells, which defend the human body against the disease.

"We used malaria as a model system to test this exciting new technology, because it is the most important infectious disease threat to our operating forces," said Hoffman. "The significance of this demonstration, however, is in the proof of principle that allows us to advance toward a new era in vaccines."

The Naval Medical Research Center began researching DNA vaccines more than six years ago as part of their mission to combat health threats to military members. Malaria is one of the major threats to American military forces. It threatens billions and afflicts 300 to 500 million individuals worldwide each year.

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Headline: Don't drown in shallow water

By Tanya C. Brown, Bureau of Medicine Surgery

WASHINGTON -- It doesn't seem logical for a skilled swimmer to drown during a routine dive or while swimming underwater. But for some Naval personnel, that danger became a reality.

Recently, three Sailors who were victims of "shallow water blackout" drowned during training. Shallow water blackout is a result of hyperventilating or taking a series of short breaths before going underwater. Although most underwater swimmers find that they can hold their breath longer if they hyperventilate before diving, the U.S. Navy Diving Manual prohibits the technique.

It was reported that one of the victims, a chief petty officer, was a skilled swimmer who died while alone in a base pool. He was known to practice breath holding to extend the amount of time he could stay submerged. In this case, when he encountered difficulty, there was no one at the pool to assist him.

Swimmers are advised that only aerobic activity safely increases endurance.

The Navy is concerned enough about shallow water blackout that commanders have been directed to inform personnel about this danger and to post warnings in swimming areas.

According to CAPT John Murray, MC, Bureau of Medicine and Surgery in Washington, D.C., taking a few short breaths before going underwater is a natural thing to do. He said that most people who go snorkeling or swimming feel more comfortable taking a series of breaths before going under.

"It's more of a passed on or a learned [behavior]," said Murray. "What's not passed on is the danger."

The danger begins when a swimmer takes a series of

breaths before going underwater, thereby decreasing or eliminating the amount of carbon dioxide in the blood stream. Carbon dioxide supplies the body's primary urge to inhale while breathing. Taking a series of breaths expels the carbon dioxide, allowing the swimmer to stay under water longer before feeling a need to breathe.

While diving, the levels of carbon dioxide and oxygen levels increase as the depth of the dive increases. As the carbon dioxide builds up, the diver feels a need to breathe and heads to the surface. The level of carbon dioxide decreases as the diver heads to the surface, while the already burned off oxygen supply falls rapidly, causing the diver to become unconscious and possibly drown.

Murray stressed that people who make breath-hold dives or go snorkeling can generally hold their breath long enough to accomplish their goals, but those who are not effective divers should use the appropriate underwater breathing equipment.

"It's always tragic to lose young, active duty personnel," said Murray. "These are top individuals who pushed themselves past the limit."

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Headline: Mommy's milk is best

By Teresa White, Naval Hospital Jacksonville

Jacksonville, Fla. -- Naval Hospital Jacksonville recently celebrated the first anniversary of its lactation program, awarding its "Silver Spoon Award" to mothers who made the decision to breast-feed for at least one year.

Last year, the hospital developed a lactation program that supports and encourages expectant mothers to breast-feed their babies. As a result of the program, in the last six months 71 percent of the new moms delivering babies at Naval Hospital Jacksonville decided to breast-feed. The American Academy of Pediatrics recommends breast-feeding for at least one year and encourages new mothers to continue as long as mom and baby are comfortable.

Liz Flight, a Registered Nurse, is the hospital's lactation consultant, and she is responsible for the program's success. She also led development of a new lactation room named "The Milky Way." The room provides mothers who work and breast-feed a convenient and private room for collecting breast milk while away from their babies.

There are plans to open two additional Milky Way satellites, one at the Naval Air Station and one at the Branch Medical Clinic, Jacksonville.

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Headline: Hospital Corpsman aims for stars on his shoulder

By Rod Duren, Naval Hospital Pensacola

PENSACOLA, Fla. -- Hospital Corpsman Second Class Allen

S. Mosby, Jr., the son of a retired Chief Dental Technician, is seeing his life-long dream of becoming a naval officer come true. He was among 50 selected out of 500 applicants who applied for the Navy's "Seaman to Admiral" enlisted commissioning program.

Mosby, a Fleet Marine Force qualified corpsman, served with the Marines during Desert Shield/Desert Storm. Today he works as an X-ray technician at the Branch Medical Clinic aboard Naval Air Station Whiting Field, Fla. "This has been a life-long dream of mine to become a naval officer," said the nine-year veteran. "I was elated, happy, shocked and then overjoyed." But his wife, Samantha, may have been happier. She began calling family and friends to tell them the good news.

The program, restarted by former Chief of Naval Operations, ADM Jeremy Boorda in 1994, is a full-time undergraduate education and follow-on commissioning program, which allows a Sailor to go to college and earn a bachelor's degree. In this case, Mosby will then attend Officer Candidate School at Naval Air Station Pensacola, Fla., where he will be commissioned an ensign in the Naval Reserve.

Mosby said that he hopes to attend either the University of North Florida or Jacksonville University to study secondary education. While at college, he will receive full pay and benefits plus tuition, fees and book allowances.

Even though college demands a lot of work, the requirements for a strong work ethic will be nothing new for Mosby. As an X-ray technician at the clinic, Mosby now shoots and develops between 250-300 diagnostic x-rays per month as well as scheduling mammograms, CT scans and ultrasounds. He is also the Leading Petty Officer and patient satisfaction representative of the Radiology Department. He adds to those duties serving as the clinic's assistant physical training coordinator, CPR instructor and serving on the NAS Whiting Field color and honor guards.

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Headline: Navy Medicine wins visual information production awards

By Duane Straub, National Naval Medical Center, Bethesda

BETHESDA, Md. -- It is not only the medical team that makes a strong contribution to Navy Medicine. Among the other contributors who help Navy Medicine's excellent reputation are the Navy's medical Visual Information Departments.

At the recent American Forces Information Service/Defense Visual Information competition for video tape productions, Navy Medicine Visual Information Departments won three of 12 awards.

Navy Medical Center, San Diego, submitted a winner entitled "U.S. Navy Hospital Corps: A Century of Tradition, Valor and Sacrifice." Naval School of Health Sciences, Bethesda, Md., submitted two winning productions: "The Navy's Medical Prime Vendor Program" and "Pesticide Spill Prevention."

CAPT John Gallis, one of the Bureau of Medicine and Surgery judges who picked the entries to go to the next level of competition at the Chief of Naval Operations said, "It was a pleasure to serve as one of the judges. The quality of all of the work submitted was outstanding."

Jack Lewin, Producer of the two Naval School of Health Sciences winners said, "Being a producer here at the Naval School of Health Sciences is a very rewarding and challenging job. I wouldn't trade it for anything! Then add to that, being recognized by the Department of Defense VI, it's just a wonderful feeling..."

Awards will be presented during the Department of Defense Worldwide Visual Information/Combat Camera Conference and Workshop December 1.

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Headline: Opportunity for Navy Medical subjects in photo contest

From: U.S. Naval Institute

ANNAPOLIS, Md. -- Image is everything when it comes to the 37th Annual Naval and Maritime Photo Contest, sponsored by the U.S. Naval Institute. The competition is open to amateur and professional photographers who have captured a Naval or maritime subject on film.

For Navy medical personnel, topics of a Naval or maritime theme could include medical subjects appropriate for this contest: FMF Corpsman with Marines, Medevac chopper landing on deck of a hospital ship. Red cross shirts on the flight deck, personnel in uniform (to distinguish them from just someone at a terminal) transmitting imagery for telemedicine, personnel using medical equipment. Let your imagination capture that Navy Medicine moment on film.

Entries can be black and white or color prints no smaller than 5"x7," or 35mm color transparencies (no digital imagery this year). Entries need not have been taken within the past year and must not have been previously published. A maximum of five entries per person is allowed and photos will not be returned unless accompanied by a self-addressed, stamped envelope.

To be eligible, entries must be postmarked no later than Dec. 31. Cash prizes of \$500, \$350 and \$250 will be awarded to the top three entries, and the winning photos will be published in the April edition of Proceedings magazine. Additionally, 15 Honorable Mention winners will each receive \$100. Other photos, not awarded prizes, may be purchased by the Naval Institute for future use in Naval

Institute Press books, Proceedings, or Naval History magazine.

Complete rules can be obtained from the Naval Institute's web page at www.usni.org, or call the Naval Institute's public relations office at (410) 295-1058; or by sending a self-addressed, stamped envelope to:

Photo Contest Coordinator U.S. Naval Institute, 118 Maryland Avenue, Annapolis, Md., 21401-5035.

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Headline: TRICARE question and answer

Question: Do I need supplemental insurance, and where do I get supplemental insurance?

Answer: If you receive medical care outside the military system, and you don't have any other health insurance (or a supplemental policy) to help pay your cost-shares or co-payments, you'll be facing out-of-pocket expenses. Even though TRICARE pays a generous share of the cost of civilian medical bills, your share of the cost might be substantial, depending on whether you use TRICARE Standard (formerly known as CHAMPUS) or choose one of the other TRICARE health care options (Prime or Extra). TRICARE supplemental insurance policies are offered by most military associations and by some private firms. They are designed to reimburse patients for the civilian medical care bills they must pay after TRICARE pays the government's share of the cost. Before you buy any supplement, carefully consider which plan is best suited to your individual needs.

Each TRICARE supplemental policy has its own rules concerning acceptance for pre-existing conditions, eligibility requirements for the family, deductibles, mental health limitations, long-term illness, well-baby care, care provided to persons with disabilities, claims under the diagnosis-related group, payment system for inpatient hospital charges, and rules concerning allowable charges.

For a list of companies that offer supplementary insurance go to the Office of the Secretary of Defense (Health Affairs) web page at <http://www.ochampus.mil/> and look under beneficiary resources, supplemental insurance.

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Headline: Healthwatch: Observe Red Ribbon Week
From Chief of Naval Operations

What began as a memorial to a Drug Enforcement Agent slain in 1985 has evolved into a national observance - Red Ribbon Week (October 23 through 30).

The Department of Defense has observed the annual drug awareness, prevention and educational program designed to

present a unified commitment on the part of communities across the nation since 1989.

"It's like a catalyst to reenergize programs that are already working in each area community," said William Flannery, Program Manager for Navy Drug Testing. "Having the Department of Defense as a part of [Red Ribbon Week] shows our part in the whole program of a drug free America."

The red ribbon began as a memorial for a slain DEA agent who was dedicated to promoting drug prevention and awareness. "The National Family Partnership decided to remember his death by wearing a red ribbon, said Flannery."

Service members along with the schools, community and religious organizations across the nation will provide drug prevention and awareness handouts and brochures to students and parents.

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Comments about and ideas for MEDNEWS are welcome. Story submissions are encouraged. Contact MEDNEWS editor, Earl Hicks, at email: mednews@us.med.navy.mil; Telephone 202/762-3223, (DSN) 762-3223, or fax 202/762-3224.

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